APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/734,751	12/11/2000	Daniel M. Bartell	3272	4823

7590   10/22/2003

Chief IP Counsel
Affymetrix, Inc.
3380 Central Expressway
Santa Clara, CA 95051

EXAMINER
AZARIAN, SEYED H

ART UNIT	PAPER NUMBER
2625	

DATE MAILED: 10/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _11 December 0200_ .

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-27_ is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-6,8-15,17-24,26 and 27_ is/are rejected.

7) ☒ Claim(s) _7,16 and 25_ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on _11 December 2000_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

   If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a) ☐ All b) ☐ Some * c) ☐ None of:

   1. ☐ Certified copies of the priority documents have been received.

   2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

   3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
   * See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

   a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

<u>Claim Rejections - 35 USC § 103</u>

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

2.   <u>Claims 1-6, 8-15, 17-24 and 26-27, are rejected under 35 U.S.C. 103(a) as being</u>

<u>unpatentable over Arnold et al (U.S. patent 4,922,915) in view of Syracuse et al (U.S. patent</u>

<u>5,781,225).</u>

Regarding claim 1, Arnold et al discloses computer implemented method for detecting

pixel stutter of a scanner comprising:

obtaining data representing a plurality of pixels using said scanner (column 10, lines 19-

29, the image 200 represents a plurality of pixels that each has an intensity that correspond to the

X-ray);

obtaining a measurement of pixel stutter in said image (column 6, lines 34-54, evaluating

sufficient number of pixel and column 11, lines 42-58, measuring all pixels within the

boundaries or lie outside of reference);

obtaining a statistical distribution of pixel stutter; and determining whether said

measurement is above what is expected from said statistical distribution (column 28, line 54

through column 29, line 12, refer to calculating pixels and distribution which is well defined).

However Arnold et al is silent about "pixel stutter". On the other hand Syracuse et al

teaches (column 4, lines 29-43, the pixels in adjacent scan line from different views in the slow

scan direction cause an effect called image stutter).

Therefore it would have been obvious to one having ordinary skill in the art at the time of

the invention was made, to modify Arnold et al invention according to the teaching of Syracuse

et al because it providing scanning direction to reduce image ambiguity and remove overlap in

pixels which can implement in scanning device for efficiency and quality of desire image.

Regarding claim 2, Arnold et al discloses the method of Claim 1 wherein said

measurement of pixel stutter is time correlated (column 29, lines 30-45, refer to time and pixel

evaluation).

Regarding claim 3, Arnold et al discloses the method of Claim 2 wherein said image has

a plurality of rows and columns of pixels, wherein said scanner obtains said image row by row

and wherein said measurement of pixel stutter is row stuttered pixel count (Fig. 10 and 11,

column 12, lines 65 through column 13, lines5, refer to rows and columns).

Regarding claim 5, Arnold et al discloses the method of Claim 4 wherein said statistical

distribution is measured by column stuttered pixel count (Fig. 14, column 19, lines 5-23,

calculation of pixels in column).

Regarding claim 6, Arnold et al discloses the method of Claim 5 wherein said determining comprises comparing row stuttered pixel count and column stuttered pixel count (column 17, lines comparing the pixels).

Regarding claim 9, Arnold et al discloses the method of Claim 8 further comprising displaying stuttered pixels overlaid on said image (Fig. 1, column 10, lines 19-29, display or video monitor).

Regarding claim 10, Arnold et al discloses a computer software product for detecting pixel stutter of a scanner comprising: computer program code for obtaining data representing a plurality of pixels using said scanner; computer program code for obtaining a measurement of pixel stutter in said image; computer program code for obtaining a statistical distribution of pixel stutter; computer program code for determining whether said measurement is above what is expected from said statistical distribution; and a computer readable media for storing said codes (see claim 1 and column 26, lines 39-43, source code which implements the above aspect).

Regarding claim 19, Arnold et al discloses a system for detecting pixel stutter of a scanner comprising: a processor; and a memory coupled to the processor, the memory capable of storing a plurality machine instructions that cause the processor to perform a plurality of logical steps when implemented by the processor, said logical steps including: obtaining data representing a plurality of pixels using said scanner; obtaining a measurement of pixel stutter in said image; obtaining a statistical distribution of pixel stutter; and determining whether said measurement is above what is expected from said statistical distribution (see claim 1 and column 29, lines 30-45, refer to memory array).

Regarding claims 4, 13 and 14, it recites similar limitation as claim 1, are similarly analyzed.

Regarding claims 11-12, 20-21, 23 and 26, it recites similar limitation as claims 2 and 3, are similarly analyzed.

Regarding claims 8, 15, 17, 22 and 24, it recites similar limitation as claims 1, 6, and 10, are similarly analyzed.

Regarding claims 18 and 27, it recites similar limitation as claim 9, are similarly analyzed.

Allowable Subject Matter

3.   Claims 7, 16 and 25, are objected as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitation of the base claim and any intervening claims.

Other prior art cited

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. patent (5,945,679) to Dorsel et al is cited for apparatus for scanning a chemical array.

U.S. patent (6,084,991) to Sampas is cited for CCD imager for confocal scanning microscopy.

U.S. patent (5,350,374) to Smith is cited for topography feedback control system for photoblation.

U.S. patent (5,360,006) to Geiser et al is cited for automated method for digital image quanttation.

U.S. patent (6,542,183) to DeAngelis et al is cited for event recording apparatus.

U.S. patent (5,744,305) to Fodor et al is cited for arrays of materials attached to a substrate.

Contact Information

4.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Seyed Azarian whose telephone number is (703) 306-5907. The examiner can normally be reached on Monday through Thursday from 6:00 a.m. to 7:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta, can be reached at (703) 308-5246.

Any response to this action should be mailed to:

Assistant Commissioner for Patents
Washington, D.C. 20231

Or faxed to:

(703) 872-9306, ("draft" or "informal" communications should be clearly labeled to expedite delivery to examiner).

Hand delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application should be directed to T.C. customer service office whose telephone number is (703) 306-0377.

Seyed Azarian
Patent Examiner
Group Art Unit 2625
October 14, 2003

TIMOTHY M. JOHNSON
PRIMARY EXAMINER